

IN THE CLAIMS:

Please amend claims 4 and 13 as follows. Please cancel claim 6 without prejudice or disclaimer.

1. (Original) A laser drilling method for carrying out the drilling by irradiating a workpiece with laser light from a laser oscillator through a mask having a predetermined mask pattern,

wherein said laser light is transformed into laser light having a linear cross-section,

an irradiation position of said linear laser light is fixed, and

said mask and said workpiece are synchronously moved so that said mask passes through an irradiation position of said laser light while the moving direction thereof is made perpendicular to the extending direction of said linear laser light so that said mask is scanned by said linear laser light, the drilling defined by said mask pattern thereby being carried out to said workpiece.

2. (Original) The laser drilling method according to claim 1, wherein, by arranging an imaging lens between said mask and said workpiece, the projection ratio of said mask pattern to said workpiece can be set.

3. (Original) The laser drilling method according to either claim 1 or 2, wherein the displacement of said mask or said workpiece is detected, and the oscillation operation

of said laser oscillator is controlled in accordance with the detected displacement.

4. (Currently Amended) A laser drilling method for carrying out the drilling by irradiating a workpiece with laser light from a laser oscillator through a mask having a predetermined mask pattern,

wherein said laser light is transformed into laser light having a linear cross-section,

said mask arranged at a predetermined position is irradiated with said linear laser light, and

said workpiece is moved in the perpendicular direction to the extending direction of said linear laser light, so that said workpiece is scanned by said laser light passing through said mask, the drilling defined by said mask pattern thereby being carried out to said workpiece,

wherein the displacement of said workpiece is detected, and the oscillation operation of said laser oscillator is controlled in accordance with the detected displacement.

5. (Original) The laser drilling method according to claim 4, wherein, by arranging an imaging lens between said mask and said workpiece, the projection ratio of said mask pattern to said workpiece can be set.

6. (Canceled)

7. (Original) A laser drilling apparatus for carrying out the drilling by irradiating a workpiece with laser light from a laser oscillator through a mask having a predetermined mask pattern, said apparatus comprising:

an optical system for transforming said laser light into laser light having a linear cross-section; and

a drive mechanism for synchronously moving said mask and said workpiece;

an irradiation position of said linear laser light from said optical system being fixed,

said drive mechanism moves said mask and said workpiece so that said mask passes through an irradiation position of said laser light, the moving direction thereof being made perpendicular to the extending direction of said linear laser light so that said mask is scanned by said linear laser light, the drilling defined by said mask pattern thereby being carried out to said workpiece.

8. (Original) The laser drilling apparatus according to claim 7, wherein an imaging lens is arranged between said mask and said workpiece and the projection ratio of said mask pattern to said workpiece can be set by said imaging lens.

9. (Original) The laser drilling apparatus according to either claim 7 or 8, wherein

said optical system is a homogenizer.

10. (Original) The laser drilling apparatus according to either claim 7 or 8, wherein said optical system comprises a homogeneous optical system that homogenizes the energy density about the cross-section of the laser light from said laser oscillator and a cylindrical lens that transforms the cross-section of the laser light from said homogeneous optical system into a linear shape.

11. (Previously Presented) The laser drilling apparatus according to claim 7 or 8, further comprising a position detector for detecting the displacement of said workpiece and a controller for controlling the oscillation operation of said laser oscillator in accordance with the displacement detected by said position detector.

12. (Previously Presented) The laser drilling apparatus according to claim 7 or 8, further comprising a position detector for detecting the displacement of said mask and a controller for controlling the oscillation operation of said laser oscillator in accordance with the displacement detected by said position detector.

13. (Currently Amended) A laser drilling apparatus for carrying out the drilling by irradiating a workpiece with laser light from a laser oscillator through a mask having a predetermined mask pattern, said apparatus comprising:

an optical system for transforming said laser light into laser light having a linear cross-section; and

a drive mechanism for moving said workpiece;

said mask arranged at a predetermined position being irradiated with said linear laser light from said optical system,

said drive mechanism moves said workpiece in the perpendicular direction to the extending direction of the linear laser light so that said workpiece is scanned by the laser light passing through said mask, the drilling defined by said mask pattern thereby being carried out to said workpiece,

wherein the displacement of said workpiece is detected, and the oscillation operation of said laser oscillator is controlled in accordance with the detected displacement.

14. (Original) The laser drilling apparatus according to claim 13, wherein an imaging lens is arranged between said mask and said workpiece and the projection ratio of said mask pattern to said workpiece can be set by said imaging lens.

15. (Original) The laser drilling apparatus according to either claim 13 or 14, wherein said optical system is a homogenizer.

16. (Original) The laser drilling apparatus according to either claim 13 or 14,

wherein said optical system comprises a homogeneous optical system that homogenizes the energy density about the cross-section of the laser light from said laser oscillator and a cylindrical lens that transforms the cross-section of the laser light from said homogeneous optical system into a linear shape.

17. (Previously Presented) The laser drilling apparatus according to claim 13 or 14, further comprising a position detector for detecting the displacement of said workpiece and a controller for controlling the oscillation operation of said laser oscillator in accordance with the displacement detected by the position detector.